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USING THE MEPS-IC TO STUDY RETIREE HEALTH INSURANCE

by

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Abstract

This paper discusses using the restricted-access Medical Expenditure Panel Survey-Insurance Component (MEPS-IC) to study employer-sponsored retiree health insurance (RHI). This topic is particularly interesting given current events such as the aging of baby boomers, rising health care costs, new prescription drug coverage under Medicare, and changes in accounting standards for reporting liabilities related to RHI offerings. Consequently, employers are grappling with an aging workforce, evaluating Medicare subsidies to employers for offering retiree drug plans, facing rising premium costs as a result of rising health care costs, and trying to show profitability on financial reports. This paper provides technical information on using the MEPS-IC to study RHI and points out data issues with some of the measures in the database. Descriptive statistics are provided to illustrate the types of retiree estimates possible using the MEPS-IC and to show some of the trends in this subject area. Not surprising, these estimates show that employer offers of RHI have declined, greater numbers of retirees are enrolling in these plans, and expenditures for employer-sponsored RHI have been rising.

Keywords: retiree health insurance, employers, Medicare, aging

* The analysis and results presented in this paper are attributable to the author and do not necessarily reflect concurrence by the U.S. Census Bureau. This paper has undergone a more limited review by the Census Bureau than official Census publications. It has been screened to ensure that no confidential data are revealed.

INTRODUCTION

This paper discusses technical aspects of using the Medical Expenditure Panel Survey-Insurance Component (MEPS-IC) to study employer-sponsored retiree health insurance (RHI). This topic is particularly interesting given current events such as the aging of baby boomers, rising health care costs, new prescription drug coverage under Medicare, and changes in accounting standards for reporting liabilities related to retiree health benefit offerings. Consequently, employers are grappling with an aging workforce, evaluating Medicare subsidies to employers for offering RHI, facing rising premium costs as a result of rising health care costs, and trying to show profitability on financial reports.

The estimates presented in this paper are based on data from the MEPS-IC.¹ In addition to the measures that are collected and described below, this survey collects data on employer offers of RHI, retiree eligibility, enrollment, premiums, and employer cost sharing. To capture information on this increasingly important subject area, the survey questions on RHI have been modified over the years. Currently, respondents are asked to provide data at the firm level,² for early retirees (those retirees less than 65 years of age) and Medicare-eligible retirees (those retirees 65 years of age or older), and whether new retirees are eligible for health insurance. Appendix A provides a summary of the retiree health insurance keycodes used each year.

In addition to the MEPS-IC measures related to retirees, data are collected on a number of establishment and workforce characteristics. This allows studies using the MEPS-IC to address a number of subject areas. These include analyses of establishment/firm behavior, organizational influences on RHI benefits' decisions, and the relationship(s) between workforce characteristics and RHI.

Data from the MEPS-IC have been used in previous analyses on retiree health insurance. Sommers (2003a) looks at the percent of full-time employees at firms offering retiree health insurance benefits in 1998 and 2000. Manufacturing firms' decisions regarding retiree health insurance offers and cost sharing in 1999 have been studied by Born and Zawacki (2006).

This paper provides preliminary estimates on employer-sponsored retiree health insurance offers to any retirees, new retirees, and access-only plan offers. Offers to early and Medicare-eligible retirees by establishment and workforce characteristics are presented. Figures also show enrollment in both single and family coverage. Enrollments and expenditures for 1998 and 2003 are also presented by establishment and workforce characteristics. Finally, figures display estimates on average monthly

¹ The data are not publicly available, but can be accessed at the Bureau's research data centers. Information on gaining access to the data centers and submitting research proposals is available at the website for the Bureau's Center for Economic Studies (<http://www.ces.census.gov>).

² An establishment is a single physical location where business is conducted or where services or industrial operations are performed. An enterprise (or company or firm) is comprised of all the establishments that operate under the ownership or control of a single operation.

premiums for retirees less than 65 years of age and 65 years of age or older. These estimates are only descriptive and do not control for other factors.

These preliminary estimates are presented to help illustrate some of the trends in employer-sponsored RHI. Looking at the figures, fewer offers are seen in 2003 compared to 1997 for both early and Medicare-eligible retirees. In recent years, a greater percentage of establishments offering RHI are providing access-only plans. In addition, increases in the number of enrolled retirees, average monthly premiums, and average monthly expenditures are seen.

This paper is also intended to give some insight on the strengths and weaknesses of the MEPS-IC data for studying RHI. This paper highlights various data issues and changes in survey questions³ related to RHI keycodes. While developing the preliminary estimates, some inconsistencies in the measures for RHI were noted but not addressed for the calculations of the estimates presented in this paper. These data issues have been summarized and some initial thoughts on improvements are suggested.

This paper continues with a description of the MEPS-IC, including imputation of measures and weighting. This is followed by a brief discussion on the estimates for offers, eligibility, and premiums/expenditures respectively. Next, a review of the data issues found with the RHI-related keycodes is presented, followed by concluding remarks.

DATA AND METHODOLOGY

The estimates presented in this paper are based on data from the 1997-2003 Medical Expenditure Panel Survey – Insurance Component (MEPS-IC). It is sponsored by the Agency for Healthcare Research and Quality and is conducted by the U.S. Census Bureau. Between 25,000 and 35,000 establishments are surveyed each year and the estimates are weighted to be nationally representative.⁴ The MEPS-IC includes both state and local government units and the private sector. Only data for private establishments is used in this analysis.

The information collected in the MEPS-IC on establishments⁵ includes measures for establishment size, establishment ownership type, industry, location, and the age of the firm. Information on the percent of the workforce that is female, over the age of 50, unionized, working part-time, and earning low/medium/high wages is also included. Each establishment or reporting unit in the MEPS – IC also provides information about

³ The survey instruments used to collect the MEPS-IC can be accessed from here:

<http://www.meps.ahrq.gov/survey.htm - icsurveyinstrument>

⁴ Prior to 2003, sample sizes were large enough to allow state-level estimates each year for 40 states. Beginning in survey year 2003, the sampling design was changed and minimum samples were collected that allow for estimates to be made for the private sector for all states. See Sommers, John P., 2004, "Updates to the Medical Expenditure Panel Survey Insurance Component List Sample Design, 2004," Agency for Healthcare Research and Quality http://meps.ahrq.gov/papers/workingpapers/WP_Nov2004_JS.pdf

⁵ Cohen, J.W., et al., "The Medical Expenditure Panel Survey: A National Health Information Resource," *Inquiry* 33 (Winter 1996/97): 373-389.

the health insurance plans they offer.⁶ The MEPS – IC collects data on premiums for single and family coverage, contributions by employers and employees, provider type, plan enrollment, deductibles, copayments, and indemnification.⁷

Employers, Their Retirees, and the Decision to Offer Retiree Health Insurance

In 1997, retiree health insurance was collected for the MEPS-IC at the establishment level. Retirees maintain an association with the firm for which they worked, however, rather than the specific establishment where they were employed. MEPS-IC data, therefore, have been collected for the firm since 1998.⁸ These firm level data on retirees are converted to establishment-level data using a retiree weight (see section below on Weighting).

In survey year 1997, respondents were asked, “Were retirees eligible to receive hospital/physician coverage in 1997?” The data are provided by keycode C219 in 1997. In the following year, respondents were asked “In 1998, did your organization provide health insurance to any employees who retired from your organization?” This is provided in keycode C551.⁹ In other words, the data are requested for the establishment in 1997 and the firm or “organization” in 1998.

The change in data collection methods from 1997 to 1998 is estimated to have had a significant effect on enrollment and expenditures (Sommers, 2003b). According to this report, private sector estimates for the number of retired enrollees jumped from 3.1 million in 1997 to 5.7 million in 1998.¹⁰ This resulted in corresponding changes in expenditures.

As stated above, beginning in 1998 respondents were asked to provide information on retiree health insurance for “ALL” locations (i.e., at the firm level). Not all establishments within the same firm, however, respond consistently on whether or not the firm offers retiree health insurance. The summary statistics in this paper are based on the establishment, and are not based on the data being aggregated up to the firm level. Therefore, data from all establishments are used, regardless of whether responses on RHI offers by establishments within the same firm are consistent.

⁶ Unfortunately, the data does not provide information on which of the employer’s health plans have retirees enrolled. Therefore, while data is available on premium costs and employer contributions for retiree coverage, information on the characteristics of the plans (e.g., provider type arrangement, prescription drug coverage) of the plans with retirees enrolled is unknown.

⁷ Some plans have self-insured indemnification, which means that the employer is assuming the risk for the employees’ medical expenses. This is in contrast to purchased plans in which the health insurance company assumes the financial risk for the enrollee’s medical claims as defined on the MEPS survey form.

⁸ The MEPS-IC data can be aggregated up to the firm level using identifiers provided in the data.

⁹ In 1997, a value of ‘3’ for keycode C219 indicates “no retirees.” A value of ‘3’ for keycode C551 indicates “don’t know.”

¹⁰ The use of different weights results in Figure 3 in this paper showing 1998 enrollment of less than 5 million retirees in contrast to the 5.7 million in Sommers (2003b).

Early Retirees and Medicare-Eligible Retirees

In survey year 2000, The MEPS-IC began asking respondents for retiree health insurance information on early retirees and on Medicare-eligible retirees. Employer-sponsored insurance for retirees fulfills different insurance needs for these two groups of retirees and is one of the strengths of the MEPS-IC for studying this subject area. Early retirees who are not yet eligible for Medicare, can face prohibitively expensive insurance options in the individual market. Employer-sponsored insurance may represent their only affordable access to coverage. Medicare-eligible retirees on the other hand, often face large out-of-pocket costs from deductibles and copayments not covered by Medicare. In addition, Medicare-eligible retirees have historically relied upon employer-sponsored insurance for prescription drug coverage. Some figures are based on the aggregation of the data on these two groups of retirees to provide comparable measures on single and family coverage across all years 1997-2003.

New Retirees

Beginning in survey year 2001, keycodes C631 and C632 (Yes/No/Don't Know responses) are collected for whether NEW retirees under 65 years of age or 65 years of age or older were eligible for non-COBRA insurance respectively. Establishments were asked whether insurance was offered to "new" retirees, which refers to individuals retiring in that survey year. For example, for survey year 2001, new retirees refer to persons who retired from the organization in 2001.

Estimations

Imputed data were used in the estimations for all measures when available. Details on the imputation of retiree health insurance keycodes (Group 9) can be found in Agency for Healthcare Research and Quality (2005). Appendix B provides a general overview of missing data for each of the retiree health insurance keycodes.

While calculating the statistics for this paper, a number of data issues were found. These include inconsistencies between different measures (e.g., offers, enrollment, etc.). These issues do not generally affect the aggregate statistics on RHI produced using the MEPS-IC. For researchers using the MEPS-IC for micro-level analyses, however, these details are presented. Information on these is provided below.

In 1997, data are not available on family coverage and only reported data for enrollment, premiums, and employer contributions are available. As a result, this paper does not include enrollment or expenditure numbers for 1997, because data on the percent of enrollees in single coverage are not known for this year. In subsequent years, enrollment in single coverage is known allowing the calculation of enrollment in family coverage using total enrollment and single enrollment figures. Imputed values are also available after 1997. The estimates presented in this paper use the family coverage and imputed data when available.

The access-only offer is defined by a zero contribution by the employer towards the premium cost for retiree coverage. Because of data issues discussed below, various conditions are used in the calculation of this estimate. These include reporting an offer of RHI and premiums and enrollment greater than zero. The enrollment conditions are used because it is not known whether the employer's contribution is in fact zero or because the establishment is reporting a zero for the employer's contribution because no retirees are enrolled. Data on premiums are often present in these cases. Because the data collected in 2000-2003 are by early retirees and Medicare-eligible retirees, the establishment is flagged as offering an access-only plan in these years if the employer contribution towards the premium cost is zero for retirees <65 or 65+ years of age. In 2000, the access-only estimate is calculated with the additional condition that early retirees [Medicare-eligible retirees] are eligible for insurance. In 2001-2003, the only difference is that the condition that any enrollees <65 [65+] are enrolled is used in place of retirees <65 [65+] are eligible. The changes in these conditions are indicated by the breaks in the line surrounding the year 2000 in Figure 4.

The enrollment estimates for all years are calculated conditional on the establishment offering retiree health insurance. In 2000, eligibility by early and Medicare-eligible retirees is an added condition. Because these data are not collected after 2001, the added condition is that early or Medicare-eligible retirees are enrolled. Inconsistencies are sometimes seen between insurance offers, eligibility, and enrollment. See section on data issues below for more information.

In calculating the premium estimates, data are used from establishments indicating that they offer retiree health insurance and have a premium value greater than zero. This condition on premiums is used because some establishments were found to have reported and/or imputed premiums equal to zero. Estimates for expenditures are also calculated conditional on the establishment offering RHI. All premium and contribution data for 1997-2002 has been inflated to 2003 dollars using the Consumer Price Index for all goods. In 2000, the premium and expenditure estimates are also conditional on the establishment having retirees <65 and 65+ years of age eligible for insurance.

The following definitions apply to the workforce characteristics in Figures 6 and 8. The dummy variable "union" equals 1 if 25 percent or more of the workforce belongs to a union. Low wage is defined at less than \$6.50/hour in 1997-1999 and less than \$9.50/hour in 2000-2003. Percent part-time <50 percent indicates that less than 50 percent of the workforce works part-time. The other workforce measures follow this same pattern. Industry numbers are NAICS-based.

Weighting

As mentioned above, the MEPS-IC collected retiree health insurance information at the establishment level in 1997. An establishment weight is available in each survey year. This weight is used in the calculation of statistics for retiree health insurance offers, access-only plan offers, eligibility, and average monthly premiums. When using the establishment weight to create these estimates, multi-unit establishments as well as

single-unit establishments are being treated as an employer in only one location and the average across all establishments is calculated.

Because firm-level retiree data were collected beginning in 1998, a new weight variable was added to the files and is to be used with the firm-level retiree measures. It is equal to the establishment weight times the ratio of establishment employment to enterprise employment for the previous year. This variable has some additional adjustments made to it for cases where the number of retirees is greater than twice the number of current employees. It is available only for establishments that offer health insurance, as non-insurance establishments are not asked about retiree coverage. The retiree weight is used in the calculation of statistics in this paper showing enrollment and expenditures. Sommers (2003b) provides additional information on weighting for retiree health insurance estimates.

Disclosure

The figures included in this paper provide a general overview of the trends in employer-sponsored health insurance. Specific numbers are not provided for disclosure avoidance reasons. Figures 2 and 3, which use Internet published numbers, are an exception to this.

ESTIMATES¹¹

These estimates are only descriptive and do not control for any possibly related factors. These statistics are provided to illustrate some of the trends in employer-sponsored RHI and to show the types of estimates possible using the MEPS-IC measures.

Employer Offers

Figure 1 shows employer-sponsored health insurance offers to all employees, retirees, and new retirees. As expected, the percentage of establishments that offer insurance to retirees or to new retirees has decreased over time.

In data not shown, establishments that offer RHI have a larger percent of early retirees eligible than the percent with Medicare-eligible retirees eligible in 1997-2000. Similarly from 2001-2003, a larger percent have new retirees <65 eligible than the percent with new retirees 65+ eligible.

Figures 2 and 3, are based on numbers from AHRQ's Internet figures using the MEPS-IC and are available on their website (http://meps.ahrq.gov/Data_Pub/IC_TOC.htm) along with technical notes (<http://meps.ahrq.gov/MEPSDATA/ic/2003/technote.pdf>).¹² A separate figure shows offers by industry, because categories change in 2000 with the

¹¹ The estimates discussed below have been calculated using the conditions explained above. Changes in the survey questions and the measures collected are reflected in the figures by breaks in the line graphs or increased spacing between the bars in the charts.

¹² Additional tables with retiree estimates can be accessed using the following hyperlink. See Table IV series for national totals for enrollees in RHI by industry and type of indemnification (see Table IV series). Table II series provides private-sector data on retirees by firm size and state. http://meps.ahrq.gov/Data_Pub/IC_Tables.htm

conversion to NAICS (North American Industrial Classification System) from SIC (Standard Industrial Classification). From 1997-2000, these numbers are based on eligibility keycodes 209 and 210. Data from enrollment keycodes 628 and 629 is used for 2001-2003.

Figure 2 shows that generally a higher percentage of the establishments that belong to older and larger firms, and multi-unit, for profit establishments are more likely to offer insurance to retirees. In terms of the workforce characteristics, establishments that are unionized, have more than 25 percent of their employees working full-time, and that have less than 50 percent of their workforce earning a low wage are more likely to also offer insurance to retirees. These patterns are similar to what is often seen with respect to insurance offers for any employees and are therefore, not surprising.

Figure 3 shows the percentage of establishments offering insurance that offer this benefit to retirees by industry. A small percentage of the establishments in the construction and agriculture/fishing/forestry industries offer RHI, which is expected since these industries are also less likely to offer insurance to any employees than establishments in other industries. In contrast, a large percentage of establishments in finance/insurance/real estate and in transportation/communications/utilities offer RHI. These patterns remain from 1997 to 2003.

Access-Only Retiree Health Insurance Offers

Some establishments may continue to offer RHI but may not contribute towards the premium cost for these retiree plans. These are referred to as access-only plans. While the retiree bears the full burden of the premium cost, the plan may be less costly than those available to them on the individual insurance market and are therefore valued by retirees.

Figure 4 shows the percent of establishments offering access-only health insurance plans. From 1998 to 2003, the percentage of establishments offering an access-only plan for single coverage is greater than the percentage offering an access-only plan for family coverage. This difference is even greater in the later years, but the reason behind this is unknown. Perhaps this trend represents the employer's response to the fairly steady increase in single enrollment, as seen in Figure 5 and discussed below.

In data not shown, the percentage of establishments with RHI that offer an access-only plan to early retirees increased from 2000 to 2003 from approximately 31 percent to 33 percent. In contrast, the percentage of establishments with RHI that offer an access-only plan to Medicare-eligible retirees during this same period dropped from about 36 percent to 31 percent.¹³ These findings may indicate employers' attempts to discourage early retirement by not contributing towards the premium cost for these early retirees. With the aging of the baby boom generation, this may be an attempt by employers to retain

¹³ The trend from 2001 to 2003 for both categories of retirees, however, shows a steady increase in access-only offers from about 25 percent in 2001. In other words, a decrease of about 5 to 10 percent is seen from 2000 to 2001, and may be attributed to the differing conditions placed on these estimates in the two years. Further investigation is warranted.

older,skilled workers.

Retiree Enrollment 1998-2003

Figure 5 illustrates enrollment for 1998-2003. Comparing the 1998 and 2003 estimates, the number of enrolled retirees has increased from less than 5 million to approximately 5.5 million. While the number enrolled in single coverage was less than the number enrolled in family coverage in 1998, almost the same number are enrolled in both types of coverage in 2003. The number of retirees enrolled in single coverage increased from about 2 million in 1998 to almost 3 million in 2003. In contrast, enrollment in family coverage dropped from about 2.8 million in 1998 to 2.1 million in 1999, and then rose fairly steadily to about 2.8 million again in 2003. These increases in enrollment may be reflective of the aging population.

In data not shown from 2000-2003, about 2 million early retirees are enrolled in employer-sponsored health plans. Less than 1 million of these retirees are enrolled in single coverage, while more than 1 million are enrolled in family coverage. In contrast an increase from less than 2.5 million to over 3.5 million Medicare-eligible retirees enrolled in employer-sponsored plans is seen during this same time period. The percent enrolled in single coverage climbed from about 1 million to almost 2 million, while enrollment in family coverage for these retirees rose from about 1.25 million to almost 1.75 million.

Figure 6 shows enrollment by establishment characteristics. Establishments that belong to older and larger firms, are multi-units, and have for-profit status have larger enrollments for both single and family coverage. Also, establishments in the construction and agriculture/fishing/forestry industries have smaller enrollments, while those in the manufacturing industry have larger enrollments. This is not surprising since Figures 2 and 3 that are based on whether or not retirees are eligible or enrolled show the same patterns. Finding that enrollments went down in transportation/utilities and the wholesale industries when an increase in the percent of establishments in these industries offering RHI has increased, however, seems surprising and the reason is unknown. Perhaps these industries have been experiencing a transition to a workforce composed of younger workers.

The location of the establishment is also included in Figure 6 and establishments in all regions have an increase in the number of retirees enrolled in single coverage from 1998 to 2003. Establishments in the south see the largest increase with about 350,000 additional enrollees. More variation is seen with the family enrollment. Establishments located in the northeast and west have fewer enrollees from 1998 to 2003, while establishments located in the south and Midwest have more enrollees. These patterns undoubtedly reflect the demographic trend for older persons to be located in warmer regions of the country.

Enrollment by workforce characteristics is also shown in Figure 6. Establishments with a higher percentage of their employees working full-time and a lower percentage earning a

low wage have larger enrollments in both single and family coverage. This is not surprising since these characteristics are more often associated with offers of RHI. Somewhat surprising, however, is the finding that establishments that are not unionized have larger enrollments, only the difference with unionized establishments is not very large. This difference may be the result of the definition of a unionized establishment as explained above. Establishments with less than 50 percent of their employees female and with less than 50 percent of their employees fifty years of age or older also have larger enrollments.

A few of the changes in enrollment from 1998 to 2003 are noteworthy. Single enrollment in nonunionized establishments increased by over 270,000, while enrollment in unionized establishments decreased. This may be related to the reduction in retiree health benefits in renegotiated union contracts during this time. Establishments with 50 percent or more of their employees earning a low wage have experienced increased enrollments in single coverage from 1998 to 2003, while establishments with less than 50 percent of their workforce earning a low wage have experienced decreased enrollments. This pattern is surprising since establishments with more workers earning a low wage are less likely to offer RHI. Establishments with less than 50 percent of their workers female saw an even bigger decline in family enrollments, approximately 1.35 million to about 1 million in 2003. These patterns with respect to low wage and female employees may be related to missing data. For example, establishments with data missing for the measures indicating the percent of workers that are female in 1998 had over 700,000 enrolled in single coverage. This enrollment number jumped up 88 percent by 2003. In other words, the impact of missing data for workforce characteristics on enrollment estimates is greater in 2003 than in 1998. Similar patterns are seen in establishments missing data on the percent of the workforce earning a low wage and enrollments in family coverage.

Premiums and Expenditures

Figure 7 shows estimates of average monthly premiums for RHI across establishments. As expected, increases in both single premiums and family premiums for all retirees, early retirees, and Medicare-eligible retirees are seen from 1998 to 2003. Given rising health care costs, these increases in premiums are expected.

Figure 8 provides estimates on retiree and employer expenditures in 1998 and 2003 by establishment and workforce characteristics. Again, based upon the construction of the earlier figures showing offers and enrollment, basically the same establishment and workforce characteristics are associated with larger expenditures. In addition, multi-unit, for profit establishments and establishments belonging to larger firms experienced a larger increase in expenditures from 1998 to 2003 than single unit, nonprofit establishments and those belonging to smaller firms. Establishments belonging to older firms also saw greater increases in expenditures than establishments belonging to younger firms. Establishments in the mining/manufacturing, finance/real estate, and professional services' industries also experienced some of the greatest increases in expenditures for both retirees and employers.

Expenditures by workforce characteristics are also shown in Figure 8.¹⁴ In general, employer expenditures for single coverage increased more from 1998 to 2003 than retiree expenditures across the workforce characteristics. In establishments with less than 50 percent of their employees working part-time, employer expenditures increased by about \$230 million. In contrast, employer expenditures for family coverage decreased across most workforce characteristics, while retiree expenditures increased. One exception is establishments with less than 50 percent of their employees working part-time. Employer expenditures increased by about \$170 million and retiree expenditures increased by about \$190 million over this 5-year period.

While not shown in this paper, average monthly expenditures per enrolled retiree were also estimated to compare 1998 and 1999. These remain fairly constant over this two-year period for all retirees enrolled in single coverage. A small decrease is seen in the retiree expenditures, offset by a small increase in employer expenditures. In contrast, expenditures for family coverage from 1998 to 1999 increased overall and for both retirees and employers.

Average monthly expenditures per enrolled early retiree were estimated from 2000-2003, but are not shown here. Expenditures for both single and family coverage for this age group each increased by approximately \$150 million overall, and retirees appeared to have larger increases in their expenditures than employers. Average monthly expenditures per enrolled Medicare-eligible retiree were also estimated for this three-year time period. Expenditures for single coverage increased by approximately \$100 million, and retirees appeared to bear nearly the full burden of this increase. A small increase is also seen in expenditures for family coverage for this group of retirees. Expenditures by the Medicare-eligible retirees increase during this time period, while the employer expenditures appear to decrease.

DATA ISSUES

While some data issues are noted above, the following discussion provides some additional details on the most prevalent issues found to date. Generally, the frequency of the data issues is higher in the earlier years of the survey. Knowledge of this frequency and further analysis of the data will help determine the best approach for dealing with each of these issues. The following discussion, however, offers some preliminary thoughts on how they might be handled.

In 1997 retiree health insurance data are collected at the establishment level and at the firm level in 1998-2003. Because the measures are not comparable between 1997 and the subsequent MEPS-IC survey years, elimination of 1997 data from any analyses may be justified. On the other hand, it may be possible to develop a measure of RHI offers at the

¹⁴ Since a large percentage of establishments are missing data for workforce characteristics and these establishments have a large number of enrollments as noted above, the impact on expenditure estimates is uncertain. A much smaller percent of establishments are missing data on part-time employees. Therefore, the estimates for expenditures by establishments with less than or more than 50 percent part-time employment should not be affected by missing data.

firm level in 1997 by aggregating the establishment-level responses for this year to the firm level and developing a retiree weight as constructed in subsequent years. Enrollment, premiums, and contributions are not imputed for 1997. Missing data in 1997 can be potentially imputed using the imputation methodology from subsequent years. Also in this year, the percent of enrolled retirees with single coverage is not known. Enrollment in single coverage could potentially be predicted by using regression analyses with data from subsequent years to determine key explanatory factors for single coverage enrollment. These key factors would then be used with 1997 data to create a predicted enrollment measure.

Beginning in 1998, establishments are asked whether or not their organization or firm offers retiree health insurance. Not all establishments within the same firm, however, respond consistently to this question. Less than about 5 percent of multi-unit firms have establishments reporting inconsistently each year. While this benefit offering is presumably made at the firm level and assumed to apply to all establishments within its organization, some might argue that this is not necessarily true. For example, a firm may be quite diversified and have establishments in various industries (e.g., manufacturing, financial services, and wholesale). Establishments in financial services are more likely to offer retiree health insurance than employers in wholesale or manufacturing. It might be useful to first investigate whether the establishment's inconsistencies regarding offers is correlated to the industry composition of the firm. Another alternative would be to omit these establishments from the sample used in analyses; however, on average for 1998 to 2003, this would eliminate approximately 700 establishments from the sample each year. Another possibility would be to apply the same response on offers to all of the establishments within the same firm that is reported by the majority of the establishments in the firm.

For some keycodes, respondents are asked to check a series of yes/no/don't know checkboxes for their response. For keycode values, 1=yes, 2=no, 3=don't know (exception is keycode 219 that has a value of '3'=no retirees). In some cases the imputed keycode value is zero, which is not a defined value. Related retiree keycodes may help reveal the logical value of the checkbox measure. This occurs in less than one percent of the establishments.

Imputation

The following data issues relate to imputed values. For the aggregate statistics that are estimated using the MEPS-IC data, these issues generally do not affect the estimates. As an increasing number of researchers are using the MEPS-IC to study a host of topics, however, identification of these data issues becomes more relevant to micro-level analyses.

The data issue found with the most frequency is the case with retirees eligible (1997) or retiree health insurance offers (1998-2003), but premiums are zero. This was found in less than 2 percent of establishments in 1997 and 1998, and an even smaller percentage in subsequent years. In 20 percent or less of these cases, enrollment is greater than zero. If

enrollment data are present, it may be possible to impute these premiums. Otherwise, if enrollment is missing and data are also missing for the other retiree keycodes, a logical edit may be to change the eligibility/offer code to indicate “no.”

Many cases can be found in almost every year in which measures have an imputed value of zero rather than what upon initial inspection should have a value of missing. For example, while retiree health insurance is not offered, enrollment, premiums, and contributions are all equal to zero. It may be appropriate to change these zeros to missing.

In some cases, the imputed value for whether the establishment offers insurance to retirees indicates that they do not. Premiums, enrollment, and employer contributions, however, are imputed with values greater than zero in some of these instances. This occurs in generally less than 2 percent of all establishments in each year. Because the imputed measure will also contain reported data, these responses should be examined to help determine whether or not the employer actually offers RHI.

In some cases, the imputed value for whether the establishment offers insurance to retirees indicates that they do. The establishment’s imputed values for premiums, enrollment, percent enrolled in single coverage, and employer contributions are all zero in some of these cases. This occurs in less than one percent of all establishments in any year. Further inspection may indicate that the imputed measure should be changed to show no RHI offer. Some establishments have an imputed premium value greater than zero, but imputed values for total enrollment and the percent enrolled in single coverage are zero. Perhaps these are acceptable or logical values. While no retirees may be enrolled, the employer may have premium data available from the insurance company.

In some cases, the imputed value for whether the establishment offers insurance to retirees indicates that they do not. The imputed value of whether they offer insurance to new retirees indicates that they do. This occurs in 2003 for less than one percent of all establishments. This situation is highly unlikely given the trends on employer-sponsored insurance for retirees.

CONCLUDING REMARKS

Employer-sponsored retiree health benefits are an important topic for analysis, given recent events. Many retirees have valued this employer benefit, because it has offered prescription drug benefits when this coverage has often been too expensive on the individual market. Now that Medicare has a prescription drug benefit, some question whether employers will continue to offer RHI if it is valued less by retirees. Also, employers need to consider whether the Medicare subsidies provided to them for continuing to offer drug plans represent sufficient incentive. In addition, baby boomers are aging and the workforce is aging. While potentially increasing the employer’s number of retirees, the employer’s liabilities for offering benefits to these individuals can increase. These liabilities must now be reported on the balance sheet and cannot be buried in a footnote in the financial statements. Consequently, employers must cope with

shareholders concerned about increased liabilities and poorer financial standing. Combined with rising health care and premium costs, these factors make RHI an interesting and current research topic.

Descriptive statistics have been provided in this paper to illustrate the types of retiree estimates possible using the MEPS-IC and to show some of the trends in this subject area. Not surprising, these estimates show fewer employer offers of RHI in 2003 compared to 1997, greater numbers of retirees are enrolling in these plans, and expenditures for employer-sponsored RHI have been rising. These estimates are only descriptive and do not control for other factors.

The MEPS-IC is a useful dataset for studying employer-sponsored retiree health benefits. These data can help with analyses studying the relationship between RHI offerings and various establishment and workforce characteristics. In addition, data are available in recent years on the enrollment, premiums, and employer contributions for early and Medicare-eligible retirees. Having data available on these two groups of retirees is one of the strengths of the MEPS-IC to address differing insurance needs between these individuals. On the other hand, researchers must address some of the weaknesses of these data. For example, some inconsistencies between the retiree measures exist and not all data are collected in every year of the survey. In addition, information about the plans in which the retirees are enrolled is unknown.

The MEPS-IC can be used to address a number of issues related to employer-sponsored retiree health benefits. Rising health care costs and an aging population are already being experienced. These trends will continue in the coming years. Given these circumstances, the MEPS-IC is a good resource for increased understanding of employer behavior towards RHI.

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Figure 1. Employer-Sponsored Health Insurance Offers

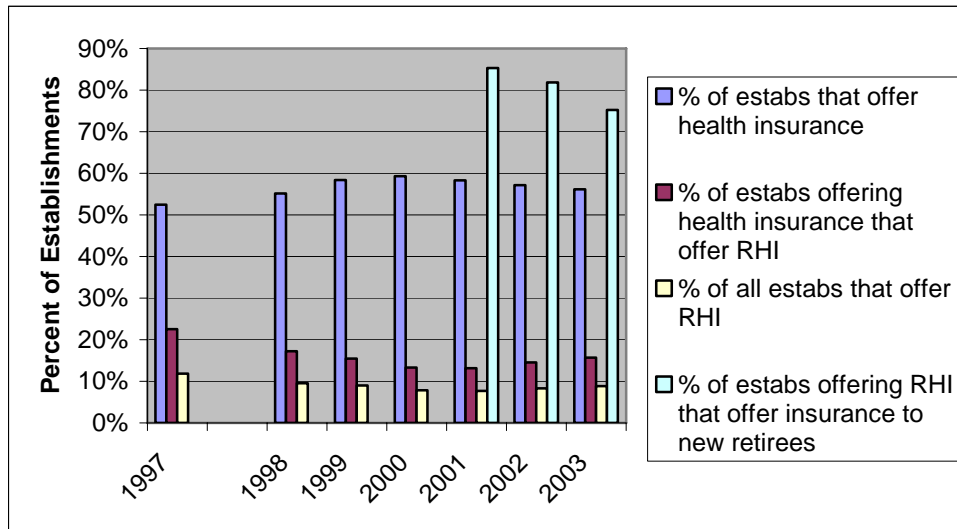


Figure 2. Retiree Health Insurance Offers by Establishment Characteristics

| | Insurance to Retirees <65 | | | | | | | | Insurance to retirees 65+ | | | | | | |
|-------------------------------------|---------------------------|-------------|-------------|-----------|-------------|-------------|-----------|-------------------------------------|---------------------------|-------------|-----------|-------------|-------------|-------------|-------------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| United States | 21.6 | 16.2 | 14.4 | 12 | 11.4 | 12.5 | 13 | United States | 19.5 | 15.4 | 13 | 10.7 | 11.2 | 12.7 | 13.3 |
| Firm Size | | | | | | | | Firm Size | | | | | | | |
| <50 employees | 9.6 | 5.5 | 4.4 | 2.2 | 0.9 | 1.2 | 1.7 | <50 employees | 9.6 | 5.6 | 4.6 | 2.4 | 1.5 | 2.1 | 2.9 |
| 50+ employees | 39.7 | 33.5 | 30.9 | 26.8 | 27 | 28.9 | 28.5 | 50+ employees | 34.6 | 31.1 | 27 | 23.3 | 25.5 | 28.1 | 27.7 |
| <10 employees | 8.7 | 4 | 3.5 | 1.7 | 0.8 | 1 | 1.3 | <10 employees | 8.5 | 4.3 | 3.5 | 2.2 | 1.1 | 1.7 | 2.3 |
| 10-24 employees | 10.4 | 7 | 5 | 2.8 | 1.3 | 1.4 | 2.4 | 10-24 employees | 11 | 7.2 | 4.9 | 2.2 | 2 | 2.7 | 3.7 |
| 25-99 employees | 14.8 | 11.5 | 9.4 | 5.2 | 1.8 | 2.5 | 3 | 25-99 employees | 13.9 | 11.5 | 10.2 | 5.3 | 3.4 | 4.4 | 4.9 |
| 100-999 employees | 25.1 | 19.8 | 16.8 | 12.2 | 7.4 | 8.9 | 10.6 | 100-999 employees | 23.2 | 18.7 | 14.6 | 10.4 | 7.7 | 9.2 | 9.9 |
| 1000+ employees | 52.9 | 44.9 | 41.8 | 37.4 | 40.2 | 43.2 | 42.3 | 1000+ employees | 45.2 | 41.2 | 36.1 | 32.2 | 37.4 | 41.1 | 40.9 |
| Ownership | | | | | | | | Ownership | | | | | | | |
| For profit, incorporated | 23.2 | 18.4 | 16.4 | 13.6 | 14.2 | 14.3 | 14.2 | For profit, incorporated | 21.1 | 17.4 | 14.8 | 11.8 | 13.8 | 14.5 | 14.7 |
| For profit, unincorporated | 12.6 | 4.6 | 5.8 | 4.6 | 2.3 | 4.1 | 8.2 | For profit, unincorporated | 10 | 4.4 | 4.4 | 4.6 | 2.6 | 3 | 6.3 |
| Nonprofit | 21 | 14.4 | 12.1 | 8.7 | 4.4 | 7.9 | 8.9 | Nonprofit | 20.2 | 14.9 | 11.9 | 8.9 | 4.6 | 10 | 11 |
| Unknown | 21.9 | 18.6 | 14.8 | 18.2 | 10 | 19 | 13.6 | Unknown | 20.4 | 15.7 | 12.6 | 18 | 9.7 | 19.6 | 14.5 |
| Age of Firm | | | | | | | | Age of Firm | | | | | | | |
| <5 years | 7.8 | 5.1 | 3 | 2.5 | 1.9 | .6* | .9* | <5 years | 6.9 | 5.3 | 2.6 | 2.7 | 1.4 | 0.5 | .9* |
| 5-9 years | 7.2 | 3.7 | 3.5 | 1.3 | 2.9 | 1* | 1.5 | 5-9 years | 6.7 | 3.3 | 2.9 | 1.5 | 2.9 | 1.2 | 1.6 |
| 10-19 years | 9.2 | 5.9 | 4.1 | 2.6 | 1.1 | 1.1 | 1.9 | 10-19 years | 9.2 | 5.3 | 4.2 | 2.4 | 1.1 | 1.1 | 1.8 |
| 20+ years | 31.3 | 22.2 | 17.9 | 16.5 | 14.6 | 16.6 | 15.3 | 20+ years | 28.8 | 21.7 | 16.7 | 15.2 | 15.2 | 17.3 | 16.7 |
| Unknown | 35.3 | 32.5 | 35.1 | 28.8 | 29.8 | 31 | 37.2 | Unknown | 30.2 | 29.6 | 30 | 23.5 | 25.6 | 29.8 | 35 |
| Multi/Single Status | | | | | | | | Multi/Single Status | | | | | | | |
| 2 or more locations | 38.8 | 31.8 | 30 | 26.1 | 26.4 | 28.4 | 27.9 | 2 or more locations | 33.9 | 29.4 | 26.2 | 22.6 | 25.1 | 27.6 | 27.2 |
| 1 Location only | 9.8 | 5.2 | 4.1 | 2.3 | 1.1 | 1.5 | 1.9 | 1 Location only | 9.6 | 5.6 | 4.3 | 2.5 | 1.6 | 2.4 | 3 |
| % Full-time Employees | | | | | | | | % Full-time Employees | | | | | | | |
| <25% | 16.8 | 10.4 | 11.4 | 10.1 | 7.8 | 9.6 | 8.7* | <25% | 15.6 | 10.8 | 10.3 | 9.2 | 9.1 | 9.8 | 9.5 |
| 25-49% | 23.4 | 18 | 12.9 | 9.4 | 10.1 | 11.6 | 12.8 | 25-49% | 22 | 15.5 | 13.2 | 7.3 | 9.1 | 12.2 | 13.8 |
| 50-74% | 14.5 | 14.4 | 11.4 | 8.6 | 10 | 8 | 11.8 | 50-74% | 13 | 14.2 | 10 | 7.4 | 9.3 | 8.5 | 13.5 |
| 75% or more | 22.9 | 16.6 | 15.3 | 13 | 12.1 | 13.7 | 13.5 | 75% or more | 20.7 | 15.8 | 13.7 | 11.8 | 11.9 | 13.8 | 13.5 |
| Union presence | | | | | | | | Union presence | | | | | | | |
| No union employees | 18.2 | 12.7 | 10.5 | 9.2 | 8.3 | 8.4 | 7.4 | No union employees | 16.6 | 12.3 | 9.3 | 8.4 | 8.1 | 8.5 | 7.7 |
| Has union employees | 48.1 | 47.2 | 40.1 | 37.6 | 40.9 | 44.1 | 42.7 | Has union employees | 42.1 | 43 | 38.5 | 31.8 | 40.1 | 45 | 43.3 |
| Unknown | 41.6 | 32.2 | 43 | 43.9 | 37.8 | 42 | 52.6 | Unknown | 36.8 | 29.7 | 39.4 | 37.3 | 35.7 | 41.6 | 53.8 |
| Percent low wage employees** | | | | | | | | Percent low wage employees** | | | | | | | |
| 50% or more low wage | 18.7 | 11.6 | 7.9 | 5.3 | 5.6 | 5.1 | 5.3 | 50% or more low wage | 18.4 | 11.1 | 8 | 5.8 | 5.4 | 5.9 | 7.6 |
| <50% low wage | 17.9 | 12.5 | 10 | 8.5 | 6.8 | 7.2 | 7.5 | <50% low wage | 16.4 | 12.3 | 9.3 | 8.1 | 7.5 | 8 | 8 |
| Unknown | 37.3 | 34 | 34.2 | 31.4 | 35.5 | 37.5 | 39.9 | Unknown | 32.1 | 30.7 | 29.6 | 25.3 | 31.7 | 35.2 | 37.8 |

* Figure does not meet standard of reliability or precision.

** Low wage defined as <\$6.50/hour 1997-1999 and <\$9.50/hour 2000-2003.

Source: Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends. 1997-2003 Medical Expenditure Panel Survey – Insurance Component.

Figure 3. Retiree Health Insurance Offers by Industry

| Insurance to Retirees <65 | | | | | | | | | |
|---|------|-------|-------|-------|--------------------------------|--|------|------|------|
| Industry | | | | | New Industry Categories | | | | |
| | 1997 | 1998 | 1999 | 2000 | | | 2001 | 2002 | 2003 |
| Agriculture, Fishing, Forestry | 10.1 | 8.9 | 6.4 | 2 | Agriculture, Fishing, Forestry | | 2.6 | 2.6* | 1.5* |
| Mining | 20.7 | 27 | 28.5 | 11 | Mining & Manufacturing | | 8.9 | 10.2 | 11.2 |
| Construction | 9.6 | 5.4 | 3.4 | 4.1 | Construction | | 2.5 | 1.8 | 2.4 |
| Manufacturing | 18.1 | 17.2 | 15.9 | 25.9 | Utilities and transportation | | 23 | 23.6 | 26.5 |
| Transportation, Communications, Utilities | 38.5 | 32.7 | 27.9 | 12.1 | Wholesale | | 11.5 | 10.7 | 14.9 |
| Wholesale | 21.2 | 16.2 | 14.9 | 29.7 | Finance services & real estate | | 34.7 | 29.5 | 27.7 |
| Retail | 26.2 | 19.2 | 16.2 | 13.9 | Retail | | 12.2 | 13.3 | 17.1 |
| Finance, Insurance, Real Estate | 41.4 | 39.5 | 38.7 | 7.4 | Professional Services | | 7.4 | 9 | 9.8 |
| Services | 13.2 | 7.9 | 7.4 | 7.4 | Other Services | | 6.1 | 9.2 | 6.6 |
| Unknown | 9.7 | ***** | ***** | ***** | | | | | |
| Insurance to Retirees 65+ | | | | | | | | | |
| Industry | | | | | New Industry Categories | | | | |
| | 1997 | 1998 | 1999 | 2000 | | | 2001 | 2002 | 2003 |
| Agriculture, Fishing, Forestry | 10.3 | 9.5 | 4.6 | 2.3 | Agriculture, Fishing, Forestry | | 4.8 | 3.8* | 4.3* |
| Mining | 25.1 | 25 | 30.2 | 10.2 | Mining & Manufacturing | | 8.8 | 12 | 11.8 |
| Construction | 9.2 | 6.3 | 4.2 | 3.3 | Construction | | 1.4 | 1.7 | 3.5 |
| Manufacturing | 15.8 | 14.6 | 12.9 | 27 | Utilities and transportation | | 23.2 | 26 | 26.1 |
| Transportation, Communications, Utilities | 36.8 | 32.2 | 26.3 | 9.6 | Wholesale | | 10.6 | 10.8 | 15 |
| Wholesale | 17.5 | 14.8 | 12.9 | 27.8 | Finance services & real estate | | 33.8 | 27 | 24.4 |
| Retail | 23.1 | 17.4 | 13.8 | 10.7 | Retail | | 11.6 | 13.5 | 19.9 |
| Finance, Insurance, Real Estate | 36.5 | 38.2 | 34.2 | 6.9 | Professional Services | | 7.5 | 9.4 | 9.6 |
| Services | 12.7 | 7.9 | 7.4 | 7.1 | Other Services | | 6.4 | 10.2 | 7.6 |
| Unknown | 9.7 | ***** | ***** | ***** | | | | | |

* Figure does not meet standard of reliability or precision.

***** No estimate available. No reported values in cell.

Source: Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends. 1997-2003 Medical Expenditure Panel Survey – Insurance Component.

Figure 4. Access-Only Retiree Health Insurance Offers 1997-2003

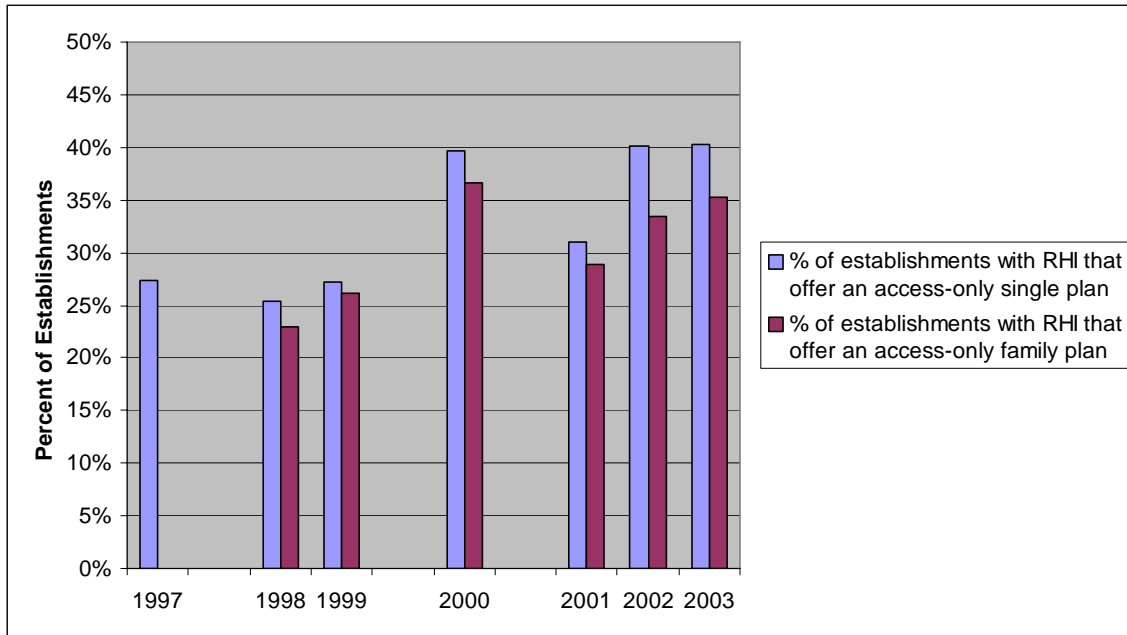


Figure 5. Number of Retirees Enrolled 1998-2003

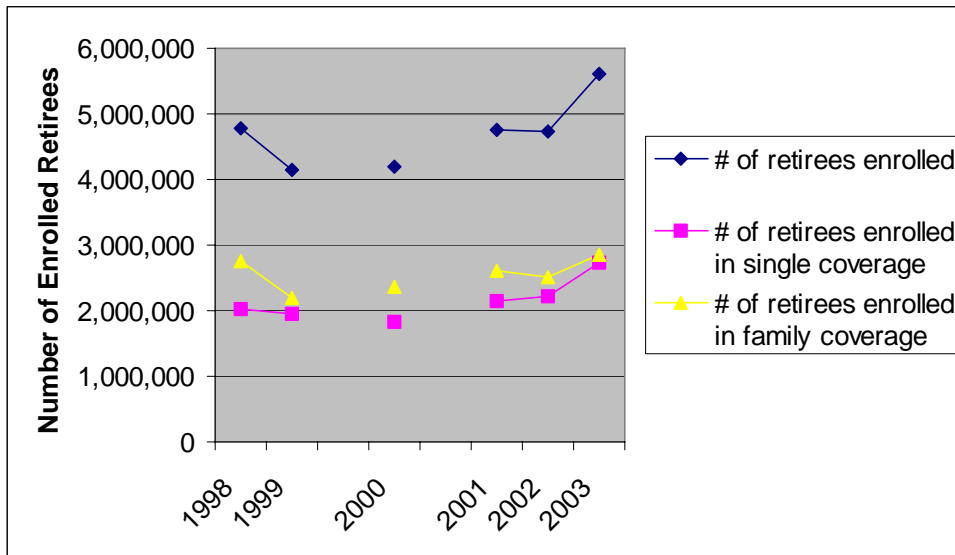


Figure 6. Retiree Enrollment by Establishment and Workforce Characteristics: 1998 and 2003 (in thousands)

| | # enrolled in single coverage in 1998 | # enrolled in single coverage in 2003 | # enrolled in family coverage in 1998 | # enrolled in family coverage in 2003 |
|--------------------------------------|---|---|---|---|
| Establishment Characteristics | | | | |
| For profit | 1,884 | 2,566 | 2,648 | 2,751 |
| Nonprofit | 145 | 170 | 113 | 112 |
| Firm age <5 years | 95 | 156 | 144 | 193 |
| Firm age >=5 years | 1,935 | 2,581 | 2,617 | 2,671 |
| Firm size <50 employees | 104 | 108 | 107 | 72 |
| Firm size >=50 employees | 1,926 | 2,629 | 2,654 | 2,792 |
| Single unit | 142 | 313 | 112 | 202 |
| Multi unit | 1,887 | 2,423 | 2,649 | 2,661 |
| Northeast | 473 | 548 | 589 | 531 |
| Midwest | 600 | 778 | 874 | 924 |
| South | 534 | 888 | 727 | 910 |
| West | 423 | 522 | 571 | 498 |
| Agriculture, fishing, forestry | <50 | <50 | <50 | <50 |
| Mining & manufacturing | 455 | 821 | 777 | 871 |
| Utilities & transportation | 203 | 154 | 426 | 291 |
| Construction | <50 | <50 | <50 | <50 |
| Wholesale | 223 | 144 | 180 | 145 |
| Retail | <50 | 165 | 51 | 120 |
| Professional Services | 424 | 670 | 555 | 681 |
| Finance & Real Estate | 448 | 541 | 483 | 560 |
| Other services | 191 | 215 | 252 | 176 |
| Workforce Characteristics | | | | |
| Union | 818 | 780 | 1,163 | 1,052 |
| Nonunion | 963 | 1,235 | 1,170 | 1,120 |
| % part-time <50% | 1,973 | 2,565 | 2,674 | 2,735 |
| % part-time >=50% | 57 | 171 | 87 | 129 |
| % low wage <50% | 935 | 928 | 1,180 | 949 |
| % low wage >=50% | <50 | 113 | <50 | 119 |
| % women <50% | 960 | 933 | 1,348 | 1,001 |
| % women >=50% | 335 | 425 | 343 | 330 |
| % 50+years <50% | 1,052 | 1,105 | 1,241 | 1,067 |
| % 50+years >=50% | <50 | 107 | <50 | 152 |

Figure 7. Average Monthly Premium for Retiree Health Insurance across Establishments

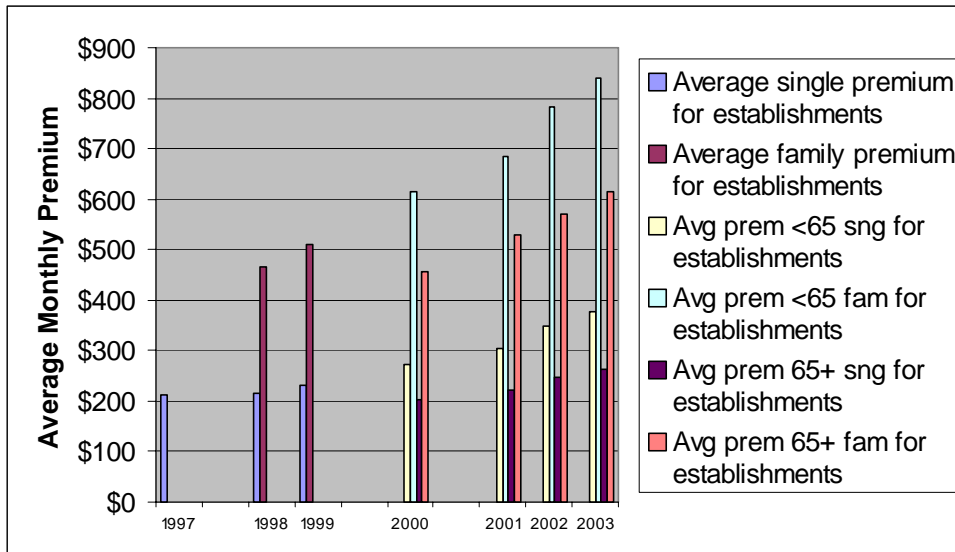


Figure 8. Retiree and Employer Expenditures: 1998 and 2003 (in millions)

| | retiree expenditures for single coverage in 1998 | retiree expenditures for single coverage in 2003 | employer expenditures for single coverage in 1998 | employer expenditures for single coverage in 2003 | retiree expenditures for family coverage in 1998 | retiree expenditures for family coverage in 2003 | employer expenditures for family coverage in 1998 | employer expenditures for family coverage in 2003 |
|--------------------------------------|---|---|--|--|---|---|--|--|
| Establishment Characteristics | | | | | | | | |
| For profit | 275 | 329 | 253 | 487 | 446 | 654 | 1007 | 1154 |
| Nonprofit | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 32 | 21-30 | 21-30 |
| Firm age <5 years | <10 | 39010 | 10-20 | 21-30 | 21-30 | 47 | 54 | 68 |
| Firm age >=5 years | 284 | 330 | 253 | 481 | 441 | 640 | 983 | 1117 |
| Firm size <50 employees | 10-20 | <10 | 10-20 | <10 | 10-20 | 10-20 | 50 | <10 |
| Firm size >=50 employees | 280 | 342 | 255 | 499 | 448 | 672 | 987 | 1181 |
| Single unit | 10-20 | 10-20 | 10-20 | 21-30 | 21-30 | 35 | 10-20 | 36 |
| Multi unit | 275 | 330 | 254 | 481 | 440 | 651 | 1017 | 1148 |
| Northeast | 41 | 51 | 62 | 99 | 105 | 112 | 197 | 226 |
| Midwest | 148 | 98 | 68 | 147 | 140 | 222 | 342 | 420 |
| South | 75 | 132 | 78 | 163 | 137 | 229 | 257 | 337 |
| West | 21-30 | 66 | 59 | 96 | 83 | 123 | 240 | 202 |
| Agriculture, fishing, forestry | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Mining & manufacturing | 56 | 138 | 59 | 170 | 115 | 224 | 295 | 364 |
| Utilities & transportation | 10-20 | 10-20 | 39 | 21-30 | 76 | 54 | 168 | 134 |
| Construction | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Wholesale | 97 | 10-20 | 10-20 | 21-30 | 56 | 34 | 37 | 54 |
| Retail | <10 | 21-30 | <10 | 10-20 | 10-20 | 40 | 10-20 | 31 |
| Professional Services | 31 | 63 | 81 | 140 | 82 | 143 | 253 | 315 |
| Finance & Real Estate | 60 | 79 | 49 | 96 | 77 | 154 | 198 | 225 |
| Other services | 21-30 | 10-20 | 10-20 | 21-30 | 38 | 34 | 66 | 58 |
| Workforce Characteristics | | | | | | | | |
| Union | 197 | 95 | 107 | 153 | 163 | 229 | 561 | 509 |
| Nonunion | 71 | 179 | 119 | 228 | 240 | 294 | 304 | 366 |
| % part-time <50% | 284 | 331 | 255 | 485 | 459 | 652 | 987 | 1160 |
| % part-time >=50% | <10 | 10-20 | 10-20 | 21-30 | <10 | 35 | 50 | 21-30 |
| % low wage <50% | 211 | 134 | 102 | 209 | 234 | 198 | 381 | 350 |
| % low wage >=50% | <10 | <10 | <10 | <10 | <10 | 10-20 | 21-30 | <10 |
| % women <50% | 199 | 154 | 119 | 203 | 251 | 255 | 557 | 375 |
| % women >=50% | 21-30 | 40 | 47 | 53 | 35 | 69 | 120 | 99 |
| % 50+years <50% | 205 | 167 | 119 | 223 | 226 | 251 | 472 | 415 |
| % 50+years >=50% | <10 | <10 | <10 | 10-20 | <10 | 35 | <10 | 43 |

Appendices

Appendix A. MEPS-IC Retiree Health Insurance Keycodes

| | | Variable | Label | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---------------|--------------|----------|---|------|------|------|------|------|------|------|
| Offers | | | | | | | | | | |
| Any retirees | | C219 | Y/N/No retirees: Any retirees eligible? | X | | | | | | |
| | | I219 | | X | | | | | | |
| | | C551 | Y/N/DK: offered RHI? | | X | X | X | X | X | X |
| | | I551 | | | X | X | X | X | X | X |
| New retirees | | C630 | Y/N/DK: Insurance offered to new retirees? | | | | | X | X | X |
| | | I630 | | | | | | X | X | X |
| Eligibility | | | | | | | | | | |
| <65 | Any retirees | C209 | Checkbox: Retirees <65 eligible | X | X | X | X | | | |
| | | I209 | | X | X | X | X | | | |
| | New retirees | C631 | Y/N/DK: New retirees <65 eligible for hlth ins? | | | | | X | X | X |
| | | I631 | | | | | | X | X | X |
| 65+ | Any retirees | C210 | Checkbox: Retirees 65+ eligible | X | X | X | X | | | |
| | | I210 | | X | X | X | X | | | |
| | New retirees | C632 | Y/N/DK: New retirees 65+ eligible for hlth ins? | | | | | X | X | X |
| | | I632 | | | | | | X | X | X |
| Enrollment | | | | | | | | | | |
| Any retirees | | C513 | Total # retirees covered by insurance | X | X | X | | X | X | X |
| | | I513 | | | X | X | | | | X |
| | | C554 | % of retirees enrolled in single coverage | | X | X | | | | |
| | | I554 | | | X | X | | | | |
| <65 | | C572 | Total # retirees <65 enrolled in health insurance | | | | X | X | X | X |
| | | I572 | | | | | X | X | X | X |
| | | C573 | % retirees <65 enrolled in single coverage | | | | X | X | X | X |
| | | I573 | | | | | X | X | X | X |
| | | C628 | Y/N: Any retirees <65 enrolled? | | | | | X | X | X |
| | | I628 | | | | | | X | X | X |
| 65+ | | C578 | Total # retirees 65+ enrolled in health insurance | | | | X | X | X | X |
| | | I578 | | | | | X | X | X | X |
| | | C579 | % retirees 65+ enrolled in single coverage | | | | X | X | X | X |
| | | I579 | | | | | X | X | X | X |
| | | C629 | Y/N: Any retirees 65+ enrolled? | | | | | X | X | X |
| | | I629 | | | | | | X | X | X |
| Premiums | | | | | | | | | | |
| Any | Single | C514 | Total mthly prem for retiree w/single cvg | X | X | X | | | | |
| | | I514 | | | X | X | | | | |
| | Family | C555 | Total mthly prem for retiree w/family coverage | | X | X | | | | |
| | | I555 | | | X | X | | | | |
| <65 | Single | C575 | Total single premium for retiree <65 | | | | X | X | X | X |
| | | I575 | | | | | X | X | X | X |
| | Family | C577 | Total family premium for retiree <65 | | | | X | X | X | X |
| | | I577 | | | | | X | X | X | X |
| 65+ | Single | C581 | Total single premium for retiree 65+ | | | | X | X | X | X |
| | | I581 | | | | | X | X | X | X |
| | Family | C583 | Total family premium for retiree 65+ | | | | X | X | X | X |
| | | I583 | | | | | X | X | X | X |
| Contributions | | | | | | | | | | |
| Any retirees | Single | C515 | Employer contrib for single cvg for retiree | X | X | X | | | | |
| | | I515 | | | X | X | | | | |
| | Family | C556 | Employer contrib for family cvg for retiree | | X | X | | | | |
| | | I556 | | | X | X | | | | |
| <65 | Single | C574 | Employer contrib for single cvg for retiree <65 | | | | X | X | X | X |
| | | I574 | | | | | X | X | X | X |
| | Family | C576 | Employer contrib for family cvg for retiree <65 | | | | X | X | X | X |
| | | I576 | | | | | X | X | X | X |
| 65+ | Single | C580 | Employer contrib for single cvg for retiree 65+ | | | | X | X | X | X |
| | | I580 | | | | | X | X | X | X |
| | Family | C582 | Employer contrib for family cvg for retiree 65+ | | | | X | X | X | X |
| | | I582 | | | | | X | X | X | X |

Appendix B. Missing Data for Retiree Health Insurance Keycodes

C001='1' INDICATING THAT ESTAB OFFERS INSURANCE MUST HOLD FOR ALL DONORS AND RECIPIENTS FOR RETIREE KEYCODES.

C551='1' INDICATING THAT RETIREE HEALTH INSURANCE IS OFFERED MUST HOLD FOR ALL DONOR AND RECIPIENT CASES

C628='1' INDICATING THAT THE ESTABLISHMENT HAS RETIREES <65 ENROLLED MUST ALSO HOLD FOR DONORS AND RECIPIENTS

C629='1' INDICATING THAT THE ESTABLISHMENT HAS RETIREES 65+ ENROLLED MUST HOLD FOR DONORS AND RECIPIENTS

| | Variable | Label | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|--------------------|----------|--|--|--------|--------|--------|--------|--------|--------|
| | | | % Missing by Category: low=<25% medium=25-45% high=>45%* | | | | | | |
| Offers | | | | | | | | | |
| Any retirees | C219 | Y/N/DK: Any retirees eligible? | low | | | | | | |
| | I219 | | 0% | | | | | | |
| | C551 | Y/N/DK: offered RHI? | | low | low | low | low | low | low |
| | I551 | | | 0% | 0% | 0% | 0% | 0% | 0% |
| New retirees | C630 | Y/N/DK: Insurance offered to new retirees? | | | | | low | low | low |
| | I630 | Imputed: Y/N/DK: Insurance offered to new retirees? | | | | | low | 0% | 0% |
| Eligibility | | | | | | | | | |
| <65 | | | | | | | | | |
| Any retirees | C209 | Checkbox: Retirees <65 eligible | low | low | low | low | | | |
| | I209 | | 0% | 0% | 0% | 0% | | | |
| New retirees | C631 | Y/N/DK: New retirees <65 eligible for hlth ins? | | | | | medium | medium | medium |
| | I631 | Imputed: Y/N/DK: New retirees <65 eligible for hlth ins? | | | | | low | low | low |
| 65+ | | | | | | | | | |
| Any retirees | C210 | Checkbox: Retirees 65+ eligible | low | low | low | low | | | |
| | I210 | | 0% | 0% | 0% | 0% | | | |
| New retirees | C632 | Y/N/DK: New retirees 65+ eligible for hlth ins? | | | | | medium | medium | medium |
| | I632 | Imputed: Y/N/DK: New retirees 65+ eligible for hlth ins? | | | | | low | low | low |
| Enrollment | | | | | | | | | |
| Any retirees | C513 | Total # retirees covered by insurance | medium | low | medium | | 0% | 0% | 0% |
| | I513 | | | low | 0% | | | | 0% |
| | C554 | % of retirees enrolled in single coverage | | medium | medium | | | | |
| | I554 | | | low | 0% | | | | |
| <65 | | | | | | medium | medium | medium | medium |
| | I572 | Imputed: Total # retirees <65 enrolled in health insurance | | | | low | low | 0% | low |
| | C573 | % retirees <65 enrolled in single coverage | | | | medium | high | high | high |
| | I573 | Imputed: % retirees <65 enrolled in single coverage | | | | low | low | 0% | low |
| | C628 | Y/N: Any retirees <65 enrolled? | | | | | low | low | low |
| | I628 | Imputed: Y/N: Any retirees <65 enrolled? | | | | | low | 0% | 0% |
| 65+ | | | | | | medium | medium | medium | medium |
| | I578 | Imputed: Total # retirees 65+ enrolled in health insurance | | | | low | low | low | low |
| | C579 | % retirees 65+ enrolled in single coverage | | | | high | high | high | high |
| | I579 | Imputed: % retirees 65+ enrolled in single coverage | | | | low | low | low | low |
| | C629 | Y/N: Any retirees 65+ enrolled? | | | | | low | low | low |
| | I629 | Imputed: Y/N: Any retirees 65+ enrolled? | | | | | low | 0% | 0% |
| Premiums | | | | | | | | | |
| Any retirees | | | | | | | | | |
| Single | C514 | Total mthly prem for retiree w/single cvg | medium | medium | medium | | | | |
| | I514 | | | low | 0% | | | | |
| Family | C555 | Total mthly prem for retiree w/family coverage | | medium | medium | | | | |
| | I555 | | | low | 0% | | | | |
| <65 | | | | | | | | | |
| Single | C575 | Total single premium for retiree <65 | | | | medium | medium | high | medium |
| | I575 | Imputed: Total single premium for retiree <65 | | | | low | low | low | low |
| Family | C577 | Total family premium for retiree <65 | | | | medium | high | high | high |
| | I577 | Imputed: Total family premium for retiree <65 | | | | low | low | low | low |
| 65+ | | | | | | | | | |
| Single | C581 | Total single premium for retiree 65+ | | | | high | high | high | high |
| | I581 | Imputed: Total single premium for retiree 65+ | | | | medium | low | low | low |
| Family | C583 | Total family premium for retiree 65+ | | | | high | high | high | high |
| | I583 | Imputed: Total family premium for retiree 65+ | | | | medium | low | low | low |

| | Variable | Label | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|----------------------|----------|--|--------|--------|--------|--------|------|------|--------|
| Contributions | | | | | | | | | |
| Any retirees | | | | | | | | | |
| Single | C515 | Employer contrib for single cvg for retiree | medium | medium | medium | | | | |
| | I515 | | | low | 0% | | | | |
| Family | C556 | Employer contrib for family cvg for retiree | | medium | medium | | | | |
| | I556 | | | low | 0% | | | | |
| <65 | | | | | | | | | |
| Single | C574 | Employer contrib for single cvg for retiree <65 | | | | medium | high | high | medium |
| | I574 | Imputed: Employer contrib for single cvg for retiree <65 | | | | low | low | low | low |
| Family | C576 | Employer contrib for family cvg for retiree <65 | | | | medium | high | high | high |
| | I576 | Imputed: Employer contrib for family cvg for retiree <65 | | | | low | low | low | low |
| 65+ | | | | | | | | | |
| Single | C580 | Employer contrib for single cvg for retiree 65+ | | | | high | high | high | high |
| | I580 | Imputed: Employer contrib for single cvg for retiree 65+ | | | | low | low | low | low |
| Family | C582 | Employer contrib for family cvg for retiree 65+ | | | | high | high | high | high |
| | I582 | Imputed: Employer contrib for family cvg for retiree 65+ | | | | low | low | low | low |

* Calculated as the percent of estabs offering health insurance that are missing data on retiree health insurance offers.

For all other measures, calculated at the percent of establishments offering retiree health insurance that are missing data on eligibility, enrollment, premiums, and contributions.

Also, reported data is used with reported data for conditions, and then imputed data with imputed data for conditions.

That is, the condition for *reported* eligibility is C551=1=*reported* data for retiree health insurance offers.

In contrast, the condition for *imputed* measures of eligibility, enrollment, premiums, and contributions is imputed offers or I551=1.

These are unweighted percents.